Name: Date: Period:

**Comparing Photosynthesis, Cellular Respiration, & Fermentation**

|  |  |  |  |
| --- | --- | --- | --- |
| Information needed | Photosynthesis | Cellular Respiration | Fermentation |
| Where does it occur? |  |  |  |
| What happens? |  |  |  |
| Starting materials: |  |  | No starting materials, but list the 2 types: |
| The whole process explained |  |  |  |
| Products |  |  | No products |

Name: Date: Period:

**Comparing Photosynthesis, Cellular Respiration, & Fermentation KEY**

|  |  |  |  |
| --- | --- | --- | --- |
| Information needed | Photosynthesis | Cellular Respiration | Fermentation |
| Where does it occur? | Chloroplast | Mitochondria | Cytoplasm |
| What happens? | Changes sunlight energy to chemical energy (food) | Use of oxygen to release energy in sugars | Release of energy without oxygen |
| Starting materials: | Carbon dioxide, water, sunlight | Sugars and oxygen | No starting materials, but list the 2 types: lactic acid and alcoholic |
| The whole process explained | Carbon dioxide and water enter chloroplasts  Chlorophyll captures energy  Energy changes the starting materials to products | Glucose breaks down into smaller molecules  Oxygen and smaller molecules move into mitochondria  Hydrogen released and captures energy | Glucose broken down  Small amount of energy released |
| Products | Oxygen and sugars | Energy, carbon dioxide, and water | No products |